

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003-NE-15-AD; Amendment 39-13146; AD 2003-10-02]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc RB211 Series Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Rolls-Royce plc (RR) RB211-524C2-19 and RB211-524C2-B-19 series turbofan engines. This AD requires replacing the existing low pressure (LP) compressor location bearing assembly, intermediate pressure (IP) compressor location bearing, IP compressor bearing support housing, IP compressor rear stub shaft, LP compressor location bearing support, oil transfer connector assembly, hydraulic oil seal housing, and hydraulic oil seal with improved design parts. This AD is prompted by statistical analysis by the manufacturer of in-service premature bearing failures. The actions specified in this AD are intended to prevent LP compressor failure and uncontained disc failures, resulting in damage to the airplane.

DATES: Effective June 19, 2003.

We must receive any comments on this AD by July 14, 2003.

ADDRESSES: Use one of the following addresses to submit comments on this AD:

- By mail: The Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2003-NE-15-AD, 12 New England Executive Park, Burlington, MA 01803-5299.
- By fax: (781) 238-7055.
- By e-mail: 9-ane-adcomment@faa.gov

You may get the service information referenced in this AD from Rolls-Royce plc, PO Box 31, Derby, England, DE248BJ; telephone: 011-44-1332-242424; fax: 011-44-1332-245-418.

You may examine the AD docket, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Ian Dargin, Aerospace Engineer, Engine Certification Office, FAA, Engine And Propeller Directorate, 12 New England Executive Park; Burlington, MA 01803-5299, telephone (781) 238-7178; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The manufacturer has performed statistical analysis of in-service bearing failures in RR RB211-524C2-19 and RB211-524C2-B-19 series turbofan engines. The analysis indicates a more rapid deterioration of the LP compressor location bearing assembly and IP compressor location bearing than the latest bearing standard used on other model RB211 turbofan engines. This AD requires replacing the existing LP compressor location bearing assembly, IP compressor location bearing, IP compressor bearing support housing, IP compressor rear stub shaft, LP compressor location bearing support, oil transfer connector assembly, hydraulic oil seal housing, and hydraulic oil seal with improved design parts. The actions specified in this AD are intended to prevent LP compressor failure and uncontained disc failures, resulting in damage to the airplane.

Relevant Service Information

We have reviewed the technical contents of RR Mandatory Service Bulletin (MSB) No. RB.211-72-D021, Revision 2, dated March 5, 2001, that introduces an improved design LP compressor location bearing assembly. We have also reviewed Service Bulletin (SB) No. RB.211-72-9446, dated October 15, 1993, that introduces an improved design IP compressor location bearing, IP compressor bearing support housing, IP compressor rear stub shaft, LP compressor location bearing support, oil transfer connector assembly, hydraulic oil seal housing, and hydraulic oil seal. MSB No. RB.211-72-D021, Revision 2, dated March 5, 2001, requires that the improved design parts listed in SB RB.211-72-9446, dated October 15, 1993, be installed before or concurrently with the installation of the improved design LP compressor location bearing assembly listed in SB RB.211-72-D021. The Civil Aviation Authority (CAA), which is the airworthiness authority for the U.K., classified MSB No. RB.211-72-D021 as mandatory and issued AD 001-12-2000, dated December 5, 2000, in order to assure the airworthiness of these RR RB211-524C2-19 and RB211-524C2-B-19 series turbofan engines in the U.K.

FAA's Determination and Requirements of This AD

Although none of these affected engine models are used on any airplanes that are registered in the United States, the possibility exists that the engine models could be used on airplanes that are registered in the United States in the future. Since an unsafe condition has been identified that is likely to exist or develop on other RR RB211-524C2-19 and RB211-524C2-B-19 series turbofan engines of the same type design, this AD is being issued to prevent LP compressor failure and uncontained disc failures, resulting in damage to the airplane. This AD requires replacing the LP compressor location bearing assembly, IP compressor location bearing, IP compressor bearing support housing, IP compressor rear stub shaft, LP compressor location bearing support, oil transfer connector assembly, hydraulic oil seal housing, and hydraulic oil seal with improved design parts.

Bilateral Airworthiness Agreement

These engine models are manufactured in the U.K. and is type certificated for operation in the United States under the provisions of § 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the CAA has kept the FAA informed of the situation described above. The FAA has examined the findings of the CAA, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

FAA's Determination of the Effective Date

Since there are currently no domestic operators of this engine model, notice and opportunity for prior public comment are unnecessary. Therefore, a situation exists that allows the immediate adoption of this regulation.

Changes to 14 CFR Part 39--Effect on the AD

On July 10, 2002, we issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs our AD system. This regulation now includes material that relates to special flight permits, alternative methods of compliance, and altered products. This material previously was included in each individual AD. Since this material is included in 14 CFR part 39, we will not include it in future AD actions.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any written relevant data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "AD Docket No. 2003-NE-15-AD" in the subject line of your comments. If you want us to acknowledge receipt of your mailed comments, send us a self-addressed, stamped postcard with the docket number written on it; we will date-stamp your postcard and mail it back to you. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify it. If a person contacts us through a nonwritten communication, and that contact relates to a substantive part of this AD, we will summarize the contact and place the summary in the docket. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We are reviewing the writing style we currently use in regulatory documents. We are interested in your comments on whether the style of this document is clear, and your suggestions to improve the clarity of our communications with you. You may get more information about plain language at <http://www.plainlanguage.gov>.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "AD Docket No. 2003-NE-15-AD" in your request.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-10-02 Rolls-Royce plc: Amendment 39-13146. Docket No. 2003-NE-15-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective June 19, 2003.

Affected ADs

- (b) None.

Applicability

- (c) This AD is applicable to Rolls-Royce plc (RR) RB211-524C2-19 and RB211-524C2-B-19 series turbofan engines. These engines are installed on, but not limited to Boeing 747 airplanes.

Unsafe Condition

- (d) This AD was prompted by statistical analysis by the manufacturer of in-service premature bearing failures. The actions specified in this AD are intended to prevent LP compressor failure and uncontained disc failures, resulting in damage to the airplane.

Compliance

- (e) Compliance with this AD is required at next parts exposure, but not later than October 10, 2005, unless already done.

Replacement of LP Location Bearing Assembly

- (f) Replace LP compressor location bearing assembly P/N UL22848 or UL29054 with an improved design LP compressor location bearing assembly. Information on the replacement of the LP compressor bearing assembly can be found in RR Mandatory Service Bulletin No. RB.211-72-D021, Revision 2, dated March 5, 2001.

Concurrent Parts Replacement

- (g) Either concurrently with, or before replacing the LP compressor location bearing assembly as specified in paragraph (f) of this AD, unless already done, replace IP compressor location bearing, IP compressor bearing support housing, IP compressor rear stub shaft, LP compressor location bearing

support, oil transfer connector assembly, hydraulic oil seal housing, and hydraulic oil seal, with improved design parts. Information on the replacement of these improved design parts can be found in RR Service Bulletin No. RB.211-72-9446, dated October 15, 1993.

Alternative Methods of Compliance

(h) Alternative methods of compliance must be requested in accordance with 14 CFR 39.19, and must be approved by the Manager, Engine Certification Office, FAA.

Related Information

(i) CAA airworthiness directive 001-12-2000, dated December 5, 2000, also addresses the subject of this AD.

Issued in Burlington, Massachusetts, on May 7, 2003.

Francis A. Favara,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 03-11974 Filed 5-14-03; 8:45 am]

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